

Claim Amendments

Please amend the claims as follows:

1. (Currently Amended) ~~An enhanced A~~ non-electrolytic energy production system for dissociating H₂O molecules at or near a reactive or catalytic surface, the system having two reactors, the step first reactor being of a primary reaction system that includes the steps of introducing selecting an electronegative half cell reaction producing hydrogen; selecting a first electropositive half cell reaction having a sufficient potential to drive said electronegative half cell reaction; selecting a second electropositive half cell reaction; said first and second electropositive half cell reactions selected in combination with said electronegative half cell reaction to produce hydrogen and/or energy production from water; and combining said half cell reactions; and the second reactor including the step of introducing steam produced as a by-product of the first reactor at elevated temperature and a positive pressure into ~~an enhanced the second~~ reactor, wherein energy added to the second reactor by the addition of the steam is used instead of energy provided as an applied electrical current by reaction systems in the second reactor as activation energy.
2. (Cancelled)
3. (Cancelled)
4. (Currently Amended) An ~~enhanced~~ energy production system according to claim 3 1 wherein the reaction system or half cell reactions require or are assisted by the provision of a reactive or catalytic surface.
5. (Currently Amended) An ~~enhanced~~ energy production system according to claim 3 1 wherein the reaction system includes on or more electropositive half cell reactions involving the oxidation of species selected from Group I or Group II metals, binary hydrides, ternary hydrides, amphoteric elements, electropositive elements in groups one and two of the periodic table and chelated transition elements, oxyacids of phosphorus and oxyacids of sulfur.

6. (Currently Amended) An ~~enhanced~~ energy production system according to claim 3 1, wherein the reaction system includes ~~on~~ one or more electropositive half cell reactions involving a metal organic complex capable of changing configuration to release one or more electrons in a realisation of an increased co-ordination number.

7. (Currently Amended) An ~~enhanced~~ energy production system according to claim 3 1, wherein the reaction system includes the formation of a further semi-conductive material or molecule.

8. (Currently Amended) An ~~enhanced~~ energy production system according to claim 7 5, wherein the semiconductive material or molecule is a composite material or molecule.

9. (Currently Amended) An ~~enhanced~~ energy production system according to claim 1, further including an associated heat exchange system that can be used to transfer heat from an exothermic chemical reaction in the cell or control the rate of exothermic chemical reaction(s).

10. (Cancelled)

11. (Currently Amended) An ~~enhanced~~ energy production system having according to claim 1, wherein the step of introducing steam at elevated temperature and a positive pressure as is the sole energy input into ~~an enhanced the~~ reactor, wherein a portion of the energy added to the reactor system by the addition of the steam is used by reaction systems in the reactor to increase ~~the number of~~ dissociated H₂O molecules at or near a reactive or catalytic surface through Brownian motion.